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Knowledge explosion key to future: Expert

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STAR BUSINESS REPORTER

Projecting future occupations and hot employment sectors is always a dodgy business, especially in light of a recent Australian study suggesting 65 per cent of preschool children in that country will eventually work in occupations that do not yet exist.

It's not surprising that the world is witnessing the birth of new careers overnight, said noted Canadian futurist and consultant Jim Carroll, because the growth of knowledge today is unprecedented in world history.

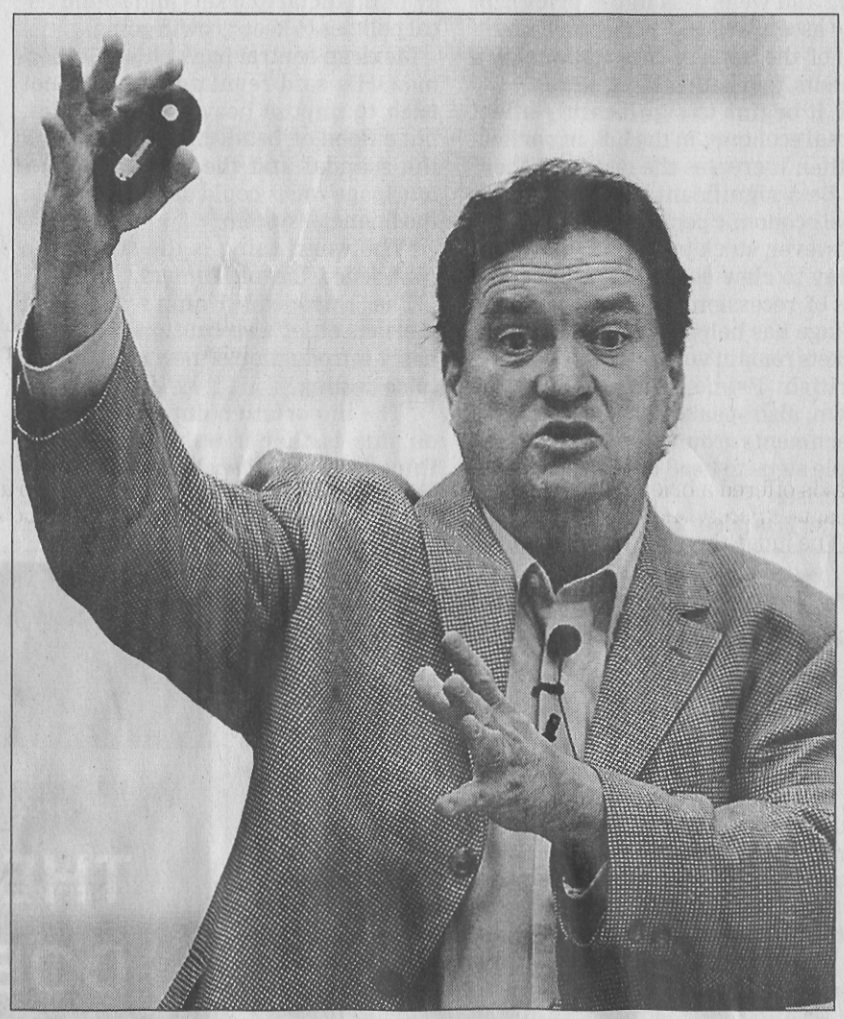
"Half of what students learn in their first year of science courses in university will be obsolete by the time they graduate," Carroll said.

Much the same is true in the medical field, said Carroll, who spoke earlier this month in Windsor.

In 2004, there were 3,600 articles published dealing with new breakthroughs in the treatment of heart disease, said Carroll.

"It would take a physician 115 eight-hour days of reading just to keep up," said Carroll.

Because of the rapid growth of knowledge, Carroll believes the future economy will be based on imparting and acquiring knowledge and learning. And this is what most adults will do for a living in the 21st century.



LOOKING AHEAD: Futurist Jim Carroll speaks Thursday morning at the Caboto Club. Carroll spoke about the job opportunities in Windsor's changing economy. *Star photo: Dan Janisse*

"Consider the increases in knowledge required to install phone lines or cable services with all the high-tech gadgetry that runs off those lines," said Carroll.

"Virtually all occupations will be impacted by this continuous explosion of knowledge."

While acknowledging that predictions are often fraught with complications, Carroll did identify some occupations that he projects will grow throughout the next few decades.

They include nurses to replace thousands scheduled to retire in the next decade; manufacturing engineers skilled in assembly line design and retooling; medical specialists to take care of the aging baby boomer generation; quality control experts, wind turbine experts; biofuel developers; website managers; hospitalists who help patients navigate their way through the ever-changing health system; and professional manure managers.

While the latter may seem a euphemism for something far less palatable, Carroll argues that global food production must double by 2050 because of population growth and farmers must devise ways to maximize their crop production through more efficient applications of growth-inducing supplements.

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JIM CARROLL

"But, regardless of what career path young people take, most expect to have a dozen or more careers during their lifetime," said Carroll.

"Gen-Xers have the shortest attention span in world history and they are bringing it into the workplace.

"And many believe that self-employment is more secure than working for someone because they've seen what's happened to their parents, particularly in the manufacturing sector," said Carroll.

Carroll said the bottom line is that Canada will continue to lose routine work to offshore jurisdictions because of labour cost issues.

"We have to figure out how we can continue to move up the knowledge ladder because there's going to be a massive shortfall in specialized skills because of the rapid growth of knowledge."

Carroll said knowledge delivery has to keep up and communities which adapt will see remarkable growth.

"In Moncton, they've opened a flight college to capitalize on the massive growth and need for employees in the worldwide aviation industry," said Carroll.

"Two-thirds of their students are from Asia and they've had to hire five new cooks to provide food for those students. "In Owen Sound, they've been operating the Georgian College Great Lakes international marine training school for years to teach students from around the world the latest technology in shipping and marine navigation systems."

Carroll said there's no reason why communities with similar localized expertise, knowledge and skill sets can't offer similar training to people who may well move on to seek work elsewhere.

"In the future, the focus will be on just-in-time training," said Carroll. "Those communities, businesses and individuals who understand that will prosper."